

# Smart Frequency Conversion ULT Freezer



DW-86L579/729/829/959BPT

## Scope of Application

Suitable for long term storage applications and compliant with typical storage requirements found in hospitals, disease control and prevention centres, scientific research institutions, biomedical engineering institutes, the agriculture/fishery sector as well as the electronics and chemical industries.

## Friendly Design

- Intelligent frequency conversion technology
- Low noise design
- Safe and secure
- Precise temperature control to ensure the cabinet temperature stability

**Haier Biomedical USA**

Website: [www.haiermedical-usa.com](http://www.haiermedical-usa.com)

**Haier Biomedical**  
Intelligent Protection of Life Science



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# Smart Frequency Conversion ULT Freezer

## Product Parts

### Smart Full-size Touch Screen

10 inch capacitive touch screen, state-of-art UI design coupled with sample management system to provide the optimal user experience



### Pressure Equalization Port

Heated port with spring assisted mechanism to prevent icing on the vent allows users to reopen the main door soon after entering. Adopts chromium plating, rust-proof



### Energy Saving Refrigeration

High efficiency cooling fans and compressors, combined with hydrocarbon refrigerants, ensure energy savings and long-term sample security



### Multi-layered Sealing Structure

Multilayered gaskets decrease heat loss and guarantee excellent warm up times in the event of a power failure



### USB Interface

Enables users to download historical temperature data for compliance/auditing purposes



### Improved Handle Design

Lockable handle with unique key prevents other Haier Biomedical freezer owner's access to your precious samples, also comes with space for a padlock for that extra security



DW-86L829BPT

## Advanced Hardware System



### Smart Full-size Touch Screen

10 inch capacitive touch screen, state-of-art UI design coupled with sample management system to provide the optimal user experience.



### HC & Variable Frequency Drive Refrigeration System for Additional Energy Saving

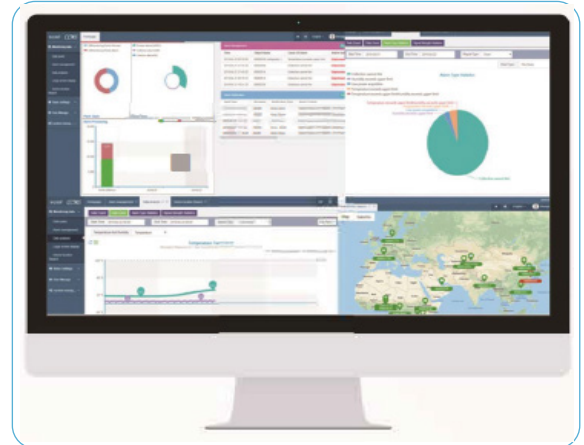
Advanced innovative design delivers superior energy savings. The energy consumption is down to a single digit.

## Optional Software System



### Simplified Sample Management Experience

Optional barcode scanner for simple, effortless and precise identification. Input and retrieve your samples with higher precision and efficiency.



### Wireless Monitoring Connectivity

Real-time monitoring with our U-Cool systems allows for simple and reliable tracking and has USB data exporting standard.

#### **A** Quicker product access, identification and retrieval

Instead of a manual system, the one-gun, one-code and one-key operation plus touch screen synchronization means you can access and retrieve your samples within seconds.

#### **B** 24-hour sample protection

Using Haier Biomedical's app and IoT technology the unit can be monitored and can self-diagnose faults, ensuring you are always aware of your unit's status and able to make real-time and informed choices to protect your samples.

#### **C** Cloud data storage available

Store hundreds of millions of scientific research and sample information in the cloud server.

## Friendly Design



### Safe and Secure

Standard equipped with key lock, padlock and optional electromagnetic lock, fingerprint lock, providing multiple safeguards for sample safety.



### Super Energy Efficient with Three Environmentally Friendly Innovations

Ultra-low power consumption, down to less than 10kWh/day, ensuring a world leading energy saving performance.



### Low Noise

Special noise-reduction design plus super silent compressor technology and energy-saving fan, considerably lowers noise level.



### Optimized Insulation

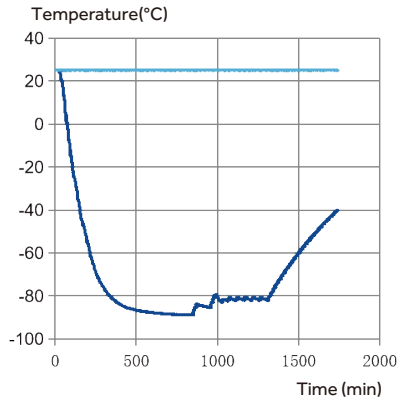
Double foaming for both inner and outer doors and five-layer sealing design and optimized super-thick VIP thermal insulation technology, extends temperature holdover time during power failure and increases insulation efficiency by 20%.

# Smart Frequency Conversion ULT Freezer

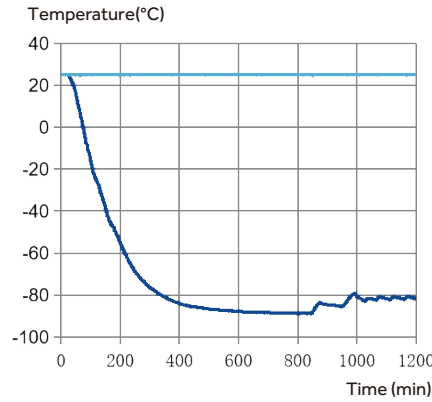
## Temperature Curve



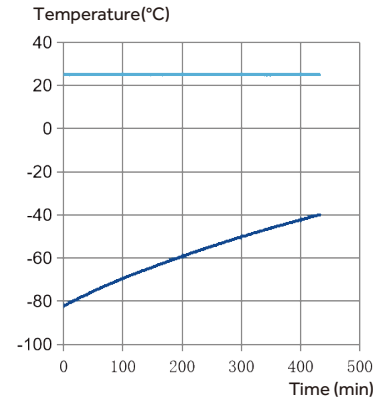
DW-86L959BPT Typical Performance Characteristics



Comprehensive Curve



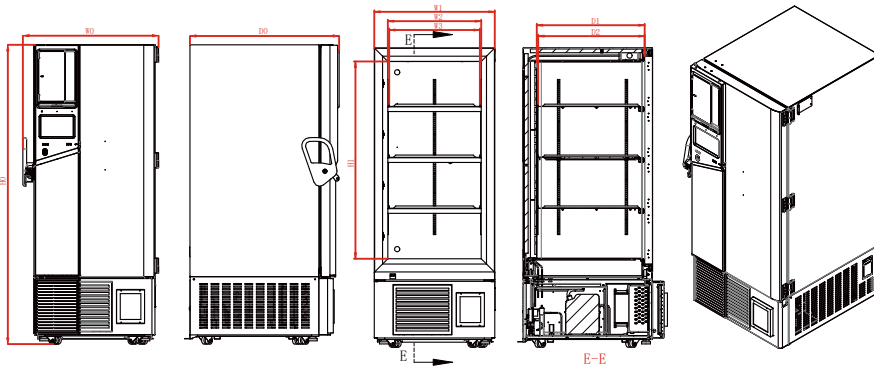
Temperature Cool Down Curve



Temperature Recover Curve

— Cen temp  
— Amb temp

## Product Dimensions



### Parameter Description:

- W0--Overall width of the machine
- W1--Outer width of the cabinet
- W2--Inner liner width
- W3--Width of inner shelf  
(Width of shelf for effective placement of freezing rack)
- D0--Overall depth of the machine
- D1-- Inner liner depth
- D2-- Inner depth of shelf  
(Depth of shelf for effective placement of freezing rack)
- H0--Overall height of the machine
- H1--Inner liner height

Parameter	W0	W1	W2	W3	H0	H1	D0	D1	D2
DW-86L579BPT	895mm	800mm	620mm	602mm	1980mm	1310mm	998mm	716mm	706mm
DW-86L729BPT	1046mm	946mm	766mm	750mm	1980mm	1310mm	998mm	716mm	706mm
DW-86L828BPT	1145mm	1050mm	870mm	854mm	1980mm	1310mm	998mm	716mm	706mm
DW-86L959BPT	1296mm	1196mm	1016mm	1000mm	1980mm	1310mm	998mm	716mm	706mm

# Smart Frequency Conversion ULT Freezer

## Specifications



	Model	DW-86L579BPT	DW-86L729BPT	DW-86L829BPT	DW-86L959BPT
Technical Data	Defrost Mode	Manual	Manual	Manual	Manual
	Refrigerant	HC	HC	HC	HC
	Sound Level (dB(A))	43.5	43.5	43.5	47
Performance	Cooling Performance (°C)	-86	-86	-86	-86
	Temperature Range (°C)	-40~-86	-40~-86	-40~-86	-40~-86
	Temperature Uniformity(°C)	±3	±3	±3	±3
Control	Controller	Microprocessor	Microprocessor	Microprocessor	Microprocessor
	Display	Touch Screen LCD	Touch Screen LCD	Touch Screen LCD	Touch Screen LCD
Electrical Data	Power Supply (V/Hz)	100-230/50/60	100-230/50/60	100-230/50/60	100-230/50/60
	Power (W)	1100	1100	1400	1750
	Electrical Current (A)	14	14	15	20
Dimensions	Capacity (L/Cu.Ft)	20.4 cu ft (579L)	25.7 cu ft (729L)	29.2 cu ft (829L)	33.9 cu ft (959L)
	Net/Gross Weight (approx)	lbs 716.5/782.6	771.6/848.8	837.7/914.9	992.1/1069.2
	Actual/Packaged Weight	kg 325/355	350/385	380/415	450/485
	Interior Dimension (W*D*H)	in 24.4*28.2*51.6	30.2*28.2*51.6	34.3*28.2*51.6	40.0*28.2*51.6
	Exterior Dimension (W*D*H)	in 35.2*39.3*78.0	41.2*39.3*78.0	45.1*39.3*78.0	51.0*39.3*78.0
	Packing Dimension (W*D*H)	in 37.4*41.5*84.6	43.3*43.5*84.6	46.9*41.1*84.6	53.7*43.5*84.6
Alarm Functions	High/Low Temperature	Y	Y	Y	Y
	Hot Condenser	Y	Y	Y	Y
	Power Failure	Y	Y	Y	Y
	High/Low Voltage	Y	Y	Y	Y
	Sensor Error	Y	Y	Y	Y
	Low Battery	Y	Y	Y	Y
	High Ambient Temperature	Y	Y	Y	Y
	Door Ajar	Y	Y	Y	Y
	Start-up Delay	Y	Y	Y	Y
Accessories	Caster	Y	Y	Y	Y
	Foot	Y	Y	Y	Y
	Porthole	Y/2	Y/2	Y/2	Y/2
	Shelves/Inner Doors	3/4	3/4	3/4	3/4
	USB Interface	Y	Y	Y	Y
	Remote Alarm	Y	Y	Y	Y
	5V Power Supply Port	Y	Y	Y	Y
	Temperature Chart Recorder	Optional	Optional	Optional	Optional
	RS485 Port	Y	Y	Y	Y
	CO <sub>2</sub> Backup System	Optional	Optional	Optional	Optional
	LN <sub>2</sub> Backup System	Optional	Optional	Optional	Optional
Certifications	UL	Y	Y	Y	Y
	ENERGY STAR	Y	Y	Y	Y

Haier Biomedical reserves the right to change products and specifications without prior notice.